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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/717,721	11/20/2003	Daniel R. Pavlik	P0020005.00	8711

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MEDTRONIC, INC.  
710 MEDTRONIC PARKWAY NE  
MINNEAPOLIS, MN 55432-9924

EXAMINER
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HELLER, TAMMIE K

ART UNIT	PAPER NUMBER
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3766

MAIL DATE	DELIVERY MODE
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04/21/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/717,721	<b>Applicant(s)</b> PAVLIK ET AL.	
	<b>Examiner</b> TAMMIE HELLER	<b>Art Unit</b> 3766	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 11 June 2008 and 16 January 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-13 and 15-28 is/are pending in the application.
- 4a) Of the above claim(s) 15-24 and 26-28 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 and 25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. The amendments filed on June 11, 2008 and January 16, 2009 have been received and considered. By these amendments, claims 26-28 are added and claims 1-13 and 15-28 now pending in the application, with claims 15-24 being previously withdrawn.

### ***Election/Restrictions***

2. Newly submitted claims 26-28 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: the newly submitted claims are directed products related to those previously acted on. The related inventions are distinct if: (1) the inventions as claimed are either not capable of use together or can have a materially different design, mode of operation, function, or effect; (2) the inventions do not overlap in scope, i.e., are mutually exclusive; and (3) the inventions as claimed are not obvious variants. See MPEP § 806.05(j). In the instant case, the inventions as claimed the invention as claimed have a materially different design, do not overlap in scope, and are not obvious variants. Furthermore, the inventions as claimed do not encompass overlapping subject matter and there is nothing of record to show them to be obvious variants.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 26-28 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

***Specification***

3. In view of the Applicant's amendment to the Abstract, the Examiner is withdrawing the objection which was made against the specification in the previous Office Action.

***Claim Rejections - 35 USC § 103***

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. Claims 1-5, 7-13, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Westlund et al. (U.S. Patent No. 6,643,550). Regarding claim 1, Westlund discloses a medical electrical lead comprising a component 100 including a surface and a groove 205/207 formed in the surface and including an inherent depth, and a conductor 195, including an inherent pre-weld diameter, extending within the lead and including a portion positioned and welded within the groove of the component (see Figures 6 and 7 and col. 5, ln. 50-65). Further, Westlund discloses that suitable welding techniques for welding conductors, such as conductor 195, includes resistance welding (see col. 7, ln. 63-65). However, Westlund fails to disclose that the pre-weld diameter of the conductor is greater than the depth of the groove. It would have been obvious to one having ordinary skill in the art at the time the invention was made for the pre-weld diameter of the conductor to be greater than the depth of the groove, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233. Alternatively, one of ordinary skill in the art would recognize that

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the pre-weld diameter of the conductor may be smaller than, larger than, or the same size as the depth of the groove. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to choose from these three finite, identified solutions when determining the appropriate ration between the diameter of the conductor and the depth of the groove.

6. Regarding claim 2, it can be seen from Figures 1 and 8 of Westlund that the surface has a curved profile.

7. Regarding claims 3-5, it can be seem from Figures 1 and 6-8 of Westlund that the component 100 comprises a substantially tubular body and the surface includes inner and outer diameters.

8. Regarding claims 7 and 8, Westlund discloses that the conductor may be a cable or a coil (see Figures 6 and 10D).

9. Regarding claims 9 and 35, it can be seen from Figure 6 of Westlund that the groove extends approximately aligned with a longitudinal axis of the component.

10. Regarding claim 10, it can be seen from Figure 10D of Westlund that the groove 207 may extend approximately transverse to a longitudinal axis of the component.

11. Regarding claim 11, it can be seen from Figure 10D of Westlund that the groove 207 may spiral about a portion of a circumference of the surface.

12. Regarding claims 12 and 13, it can be seen from Figure 10D of Westlund that the groove 207 includes a generally U-shaped cross-section. The Examiner takes the position that a generally U-shaped groove has an approximately semi-circular cross-

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section. Furthermore, as a U-shape is simply a smoothed V-shape, the Examiner takes the position that the groove of Westlund has an approximately V-shaped cross section.

13. Claims 1-3, 12, 13, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ley et al. (U.S. Patent No. 6,912,423) in view of Bush et al. (U.S. Patent No. 5,385,578). Regarding claim 1, Ley discloses a medical electrical lead comprising a component 100 including a surface and a groove 102 formed in the surface, a conductor 106 extending within the lead and including a portion positioned within the component, wherein the groove includes a depth and the portion of the conductor positioned within the groove includes a pre-weld diameter, the pre-weld diameter being greater than the depth of the groove (see Figures 9 and 10 and col. 5, ln. 41-56). However, Ley fails to disclose a resistance weld formed between the portion of the conductor and the component. Bush teaches the utilization of a resistance weld formed between conductors and lead components in order to obviate the need for a support tube or pin and to minimize the bulk of the connection (see col. 7, ln. 24-26 and 31-37). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to utilize a resistance weld between the conductor and component of Ley, as taught by Bush, in order to obviate the need for a support tube or pin and to minimize the bulk of the connection.

14. Regarding claim 2, it can be seen from Figure 9 of Ley that the surface has a curved profile.

15. Regarding claims 3-5, it can be seen from Figures 9 and 10 of Ley that the component comprises a substantially tubular body and the surface includes inner and

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outer diameters. Further, Ley discloses that the component includes an outer electrode surface 128 (see Figure 8).

16. Regarding claim 6, Ley discloses the invention essentially as claimed, but fails to specifically disclose that the outer electrode surface includes a titanium nitride coating. It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the invention of Ley in view of Bush with a titanium nitride coating on the outer electrode surface since it was known in the art that titanium nitride coatings are utilized to enhance biocompatibility and improve electrical characteristics.

17. Regarding claims 7 and 8, Ley discloses that the conductor may be a cable or a coil (see col. 5, ln. 29-32).

18. Regarding claims 9 and 25, it can be seen from Figure 9 of Ley that the groove may extend approximately aligned with a longitudinal axis of the component.

19. Regarding claims 12 and 13, it can be seen from Figure 10 of Ley that the groove 102 includes a generally U-shaped cross-section. The Examiner takes the position that a generally U-shaped groove has an approximately semi-circular cross-section. Furthermore, as a U-shape is simply a smoothed V-shape, the Examiner takes the position that the groove of Westlund has an approximately V-shaped cross section.

### ***Response to Arguments***

20. Applicant's arguments, filed June 11, 2008, with respect to the rejection(s) of claim(s) 1-13 and 25 under 35 USC 103(a) as being unpatentable over Nelson have been fully considered and are persuasive. Therefore, the rejection has been withdrawn.

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However, upon further consideration, a new ground(s) of rejection is made in view of Westlund, Ley, and Bush.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TAMMIE HELLER whose telephone number is (571)272-1986. The examiner can normally be reached on Monday through Friday from 7am until 3:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carl H. Layno can be reached on 571-272-4949. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Carl H. Layno/  
Supervisory Patent Examiner, Art Unit 3766

/Tammie Heller/  
Examiner, Art Unit 3766



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